

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	Examiner:	Techane Gergiso
Brant L. Candelore, et al.)	Art Group:	2137
Application No. 10/815,484)		
Filed: March 31, 2004)		
For: CONFIGURABLE CABLECARD)		
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SUPPLEMENTAL APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Pursuant to 37 C.F.R. § 41.37(c), Applicant submits the following Supplemental Appeal Brief for consideration by the Board of Patent Appeals and Interferences ("Board"). This Supplemental Appeal Brief is being submitted in response to the Notification of Non-Compliant Appeal Brief mailed May 22, 2007.

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I. REAL PARTY IN INTEREST

Brant L. Candelore and Henry Derovanessian, the parties named in the caption, transferred their rights in that which is disclosed in the subject application through an assignment recorded on March 31, 2004 (015180/0603) to Sony Corporation of Tokyo, Japan and Sony Electronics Inc. of Park Ridge, New Jersey. Sony Corporation and Sony Electronics Inc. are the owners at the time this brief is filed, and therefore are the real parties in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences that will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 1-20 and 22-23 are pending and are rejected. Claims 1-20 and 22-23 are presented for appeal.

IV. STATUS OF AMENDMENTS

The claims are amended in accordance with the Response Amendment filed on August 28, 2006, wherein Claims 1 and 20 were amended. The claim amendments requested in the Response Amendment filed on August 28, 2006 regarding Claims 1 and 20 were entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Regarding Claim 1, Claim 1 recites an apparatus, which may be a CableCARD 124, as shown in FIGS. 1-4, that is adapted to a digital device 120 as shown in FIGS. 1-3 of Applicants' specification. The apparatus recited by Claim 1 may comprise a cryptographic block 565 or conditional access (CA) module 340 as shown in FIGS. 2-9 of Applicants' specification. As shown in FIGS. 6 and 7, the cryptographic block 565 may include core logic 700 that is coupled to configurable logic blocks 655 by the signal traces shown in FIGS. 6 and 7. The configurable logic blocks 655 may be provided by two or more content providers, where the logic blocks are

optical spliced cells that are formed into a die from a cryptographic block 565 and are configured during manufacture. (See page 19, lines 5-11 of Applicants' specification.)

As further recited by Claim 1, a connection between the first CA logic block is disabled when descrambling of the incoming scrambled content is to be conducted according to the second CA function. As indicated by Applicants' specification:

[L]ogic block 655₃ will not be used by the cryptographic block 565. Therefore, logic block 655₃ is disabled using lasers to cut traces as shown, although destruction of gate connections, power and ground connections or the like may be performed for disablement purposes. (Page 19, lines 22-27.) (Emphasis added.)

Regarding Claim 11, Claim 11 recites an apparatus, such as a CableCARD, adapted to a digital device, such as a set-top box, which comprises a core logic 700 as shown in FIG. 7. As further recited by Claim 11, a plurality of conditional access logic blocks are coupled to the core logic and include a first conditional access logic block and a second conditional access logic block, as shown in FIG. 7. As further recited by Claim 11, the first CA function is associated with a first CA provider and the second CA logic block uses a second CA function associated with a second CA provider. As recited by Claim 11, only the first conditional access logic block is enabled for the plurality of conditional access logic blocks when the incoming scrambled content is scrambled according to the first CA function. As recited by Applicants' specification and shown in FIG. 7:

A fifth input 760 is an input for an ENABLE signal that, when set, allows the configuration logic block 655₁ to function. Otherwise, the configuration logic block 655₁ is deactivated. The ENABLE input 760 may be used in lieu of, or in addition to, the destruction of traces and connections during manufacture. (Page 21, lines 4-9 of Applicants' specification.) (Emphasis added.)

Claim 20 recites an apparatus adapted for coupling to internal circuitry of a digital device and for descrambling incoming scrambled content such as the cryptographic block 700 as shown in FIGS. 8 and 9. As further recited by Claim 20, the cryptographic block 565 may include core logic 700 and a programmable logic device (PLD) 800 that includes a plurality of programmable gates programmed to operate in accordance with a conditional access (CA) function associated

with a first CA provider to descramble the incoming scrambled content. As described by Applicant's specification:

The PLD 800 comprises programmable gates that are programmed once and battery backed. The battery may be the coin cell 580 of Figure 4 or another power supply. Therefore, any disruption in power to PLD 800 will cause the cryptographic block 565 to be inoperative. (Page 21, lines 13-18.)

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues involved in this appeal are as follows:

A. Is Claim 1 unpatentable under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement?

B. Are Claims 1, 2 and 11-13 unpatentable under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication No. 2004/0221302 issued to Ansari et al. ("Ansari") in view of U.S. Patent Publication No. 2003/02122895 issued to Kisliakov et al. ("Kisliakov")?

C. Are Claims 3-10, 14-20 and 22-23 unpatentable under 35 U.S.C. §103(a) as being unpatentable over Ansari in view of Kisliakov and further in view of U.S. Patent No. 6,289,455 issued to Kocher et al. ("Kocher")?

VII. ARGUMENT

A. Rejection of Claim 1 Under 35 U.S.C. § 112

The Examiner rejected Claim 1 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Applicants respectfully traversed the rejection.

As mandated by case law, a specification disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 U.S.C. 112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support. (See, MPEP § 2164.04.)

Here, the Examiner argues that:

Figure 6, by itself, does not show disabled connector. But figure 6 supported by disclosure in (page 19: lines 22-27) states logic block is disabled by using laser to destroy the connectors (implying permanent disabling) to switch from CA to another CA. This does not enable as claimed “a connection between the first CA logic block is disabled when descrambling of the incoming scrambled content is to be conducted according to the second CA function.” (Page 2, ¶ 1 of the Advisory Action mailed 1/25/07.)

We submit that the Examiner is attempting to limit what is covered by the claims by the specific limitations and examples in the specification, which is prohibited by MPEP § 2164.08. We submit that FIG. 6 of Applicants' specification does not show a disabled connector because the logic block may be disabled by other means and not specifically limited to destruction of a signal trace to disable a connection between a first CA logic block and the core logic, as in Claim 1. We submit that disabling of the connector is not required to disable the logic block and, therefore, is not shown in FIG. 6. In other words, as shown in FIG. 6, cutting the signal trace that couples logic block 655₃ to core logic 700 is not required to disable logic block 655₃ or the signal trace. As indicated by Applicants' specification:

A fifth input 760 is an input for an ENABLE signal that, when set, allows the configuration block logic 655₁ to function. Otherwise, the configuration block 655₁ is deactivated. The ENABLE input 760 may be used in lieu of, or in addition to, the destruction of traces and connections during manufacture. (Page 21, lines 3-9.) (Emphasis added.)

We submit that the text referred to by the Examiner describes that a trace coupling logic block 655₃, as shown, may be cut using a laser to disable logic block 655₃. We submit that the ENABLE input 760 shown in FIG. 7 of Applicants' specification may be used in lieu of the destruction of traces to disable the connection between logic block 655₃ and core logic 700 as shown in FIG. 6. (See, Supra.)

In view of the cited passage above, we submit that at least such passage, as well as FIGS. 6 and 7 of Applicants' specification, contain a teaching of the matter and process of making and using the present invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented. As a result, we submit that Applicants' specification must be taken as being in compliance with the enablement requirement of 35

U.S.C. § 112, first paragraph, since there is no reason to doubt the objective truth of the statements contained in Applicants' specification which are relied on for enabling support. (See MPEP § 2164.04.)

For each of the above reasons, therefore, we submit that FIGS. 6 and 7 in combination with page 19, lines 13-30 and page 21, lines 3-9 of Applicants' specification enable the claim language for claim 1 reciting "a connection between the first CA logic block is disabled when descrambling of the incoming scrambled content is to be conducted according to the second CA function." Hence, claim 1, as amended, is in compliance with 35 U.S.C § 112, first paragraph, by providing an enabling disclosure of the recited features of such claim. Consequently, Applicants respectfully submit that the 35 U.S.C § 112, first paragraph rejection of claim 1 is erroneous and should be overturned.

B. Overview of the Cited References

1. Overview of Ansari Reference

Ansari discloses a multi-platform digital television. Ansari teaches an integrated digital television set that enables multiple premium television services offered by cable and direct broadcast satellite (DBS) without an additional set-top box by providing a common platform that enables digital television set manufacturers to address the needs of cable television service providers and their subscribers, as well as DBS television providers and their subscribers. (See page 1, ¶ [0007].)

To provide the common platform referred to by Ansari, FIG. 1 of Ansari illustrates a television 10 which includes a programmable conditional access system (PCAS) 50 that allows different service providers to offer premium services using a common interface. (See page 2, ¶ [0018], lines 1-4.) As taught by Ansari:

The PCAS 50 provides a common hardware platform for conditional access of premium television services from direct broadcast satellite and cable service providers. (Page 2, ¶ [0018], lines 4-6.) (Emphasis added.)

As shown in FIG. 1, PCAS 50 may include a card reader/writer 52 to read/program conditional access (CA) and digital rights management (DRM) data to a removable card 54. Ansari teaches that each television service provider can program removable card 54 with its version of conditional access or CA and digital rights management or DRM information. As taught by Ansari:

Thus, the same hardware interface is used for multiple, if not all, premium television service providers. When changing service providers, the user replaces the removable card 54 with another removable card having CA and DRM data specific to the new service provider. (Page 2, ¶ [0019], lines 5-10.) (Emphasis added.)

As further disclosed by Ansari, the service provider's specific CA and DRM data are read by card reader 52 to enable display of premium channels via display 46. As further disclosed by Ansari, PCAS 50 may enable conditional access to both a first premium television service (cable television service provider) and a second premium television service (direct broadcast satellite television service provider). As taught by Ansari:

The PCAS 50 provides a first version of CA and DRM for the first premium television service and a second version of the CA and DRM for the second premium television service. The two versions of CA and DRM may simultaneously reside in the PCAS 50 and/or the removable card 54. (Page 2, ¶ [0021], lines 3-8.) (Emphasis added.)

As further taught by Ansari, PCAS 50 may be programmed by signals received via the cable interface 14, the direct broadcast satellite interface 16, the over-the-air interface 20 or the DBS telephone return interface 60, such that each television service provider can send its own specific CA and/or DRM data to the television 10, which is then written to removable card 54. (See, page 2, ¶ [0022].) Hence, Ansari teaches:

Using the PCAS 50, each television service provider has the freedom of implanting its own version of CA and DRM, and the consumers have the freedom of changing service providers without having to change their television set or acquire a new set-top box. (Page 2, ¶ [0023].) (Emphasis added.)

Regarding programming of PCAS 50, Ansari teaches:

PCAS 50 may be programmed by signals received via the cable interface 14, the direct broadcast satellite interface 16, the over-the-air interface 20, or the DBS telephone return interface 60. In this case, each television service provider can send its own specific CA and/or DRM data to the television 10, which in turn is written to the removable card 54. (Page 2, ¶ [0022].) (Emphasis added.)

The ability to program PCAS 50 and removable card 54 allows Ansari to teach a single, integrated digital television that handles premium television services from direct broadcast satellite and cable service providers without a set-top box. Hence, Ansari requires:

Preferably, all of the components illustrated within the block representing the television 10 in FIG. 1 are integrated into a single television set. For example, it is preferred that none of the aforementioned components be associated with a set-top box separable from the television 10. (Page 2, ¶ [0026].) (Emphasis added.)

2. Overview of Kisliakov Reference

Kisliakov discloses access control for a microprocessor or central processing unit (CPU) smart card defining a custom user interface. (See page 1, ¶ [0001].) As recognized by Kisliakov, a need exists for a CPU card having a user interface printed thereon that can be used in authentication, encryption and credit/banking transaction applications. (See page 2, ¶ [0010].) As further recognized by Kisliakov, the smart card system should allow easy implementation of access control in relation to certain applications executed on the system. (See page 2, ¶ [0011].)

As indicated by Kisliakov:

The embodiments disclosed herein have been developed primarily for use with automatic tellers, remote control and network access systems, and will be described herein with reference to these and other applications. The other embodiments disclosed herein can be used to access services such as home shopping, home banking, video-on-demand, interactive applications such as games and interactive trading cards, and information

access such as city guides, television program guides and educational material. (Page 4, ¶ [0105].) (Emphasis added.)

As shown in FIGS. 6A and 6B of Kisliakov, a smart card 100 can be programmed and customized to communicate with a computer 700 and obtain a service over a computer network 720 (such as the Internet). Smart card 100 may obtain a selected service based on a one touch operation that permits access to applications and/or data stored on remote server computers with appropriate reproduction by display device 701 by way of user manipulation of the reader 300 and card 100. (See page 6, ¶ [0132].)

As further shown in FIG. 6B, reader 300 can be programmed for obtaining a local service at set-top box 601 that is coupled to an output interface which is, for example, an audio-visual output device 616 such as a digital television set. The set-top box 601 is configured to perform selected functions according to touched user interface elements to permit reproduction of the output device 616. (See page 6, ¶ [0133].) In other words, as shown in FIGS. 6A and 6B, the card may be used in conjunction with card reader 300, as shown in FIG. 10, to access either global or remote services that may be reproduced on an output device 616 using a set-top box 601 as shown. (See, page 7, ¶ [0134].)

To describe such functionality, Kisliakov provides an example regarding the retrieval of online music associated with an Internet site entitled “Blues Guitar Masters.” (See page 17, ¶ [0289].) As described by Kisliakov, online music can be accessed over a system 600B, using a memory card 100C, and then purchased using a CPU card 100D configured for use with an electronic banking application as shown in FIGS. 15A and 15B. (See, Supra.)

As further described by Kisliakov, other functions may be performed on the system 600B using different cards such as home shopping, ordering home delivery fast food such as pizzas, and the like. An operation instruction of smart card 100 in the reader 300 causes its corresponding computer application to commence operations either within set-top box 601 or computer system 700 to service user commands entered via the reader 300 and to return appropriate information for audio-visual feedback to the user. (See page 70, ¶ [0290].) According to the example described, online music is provided as

data to the set-top box, which permits reproduction of audio and any related visual images on the output device 616 or the display 701 of the computer system 700.

Kisliakov teaches that once payment is completed for obtaining online music, the content may be retrieved, which is then streamed to the set-top box 616 for appropriate output as seen in FIG. 17E. (See page 19, ¶ [0302].) However, any content that is purchased by using a CPU card 100 in conjunction with the reader 300 is received in a clear form and not an encrypted form. As such, neither CPU card 100 nor reader 300 are used for decrypting or descrambling received scrambled content prior to playback to a user via output device 616 or display 701 of computer system 700.

3. Overview of Kocher Reference

Kocher discloses a method and apparatus for preventing piracy of digital content. To improve the security of systems used to distribute and protect digital content, Kocher discloses a tamper resistant device for regulated access to encoded digital content which includes a cryptographic unit that is configured to protect the memory of a microprocessor by cryptographically transferring data communicated between the microprocessor and the memory. The tamper resistant device further includes a device key that is accessible only by the cryptographic device and inaccessible by the microprocessor. (See, Col. 5, lines 55-66.)

As further disclosed by Kocher, the cryptographic unit of the tamper resistant device uses the contents of memory to transform a data value received from the microprocessor, such that the result of such transformation is required to decode digital content. (See, Col. 5, line 66 - Col. 6, line 3.) As also disclosed by Kocher:

Although it is impossible to design a content distribution system that is immune to all possible piracy attacks, the main objective of the present invention is to minimize the probability that attackers will profit from attacks. (Col. 6, lines 4-7.) (Emphasis added.)

As further disclosed by Kocher:

Although attacker business models vary, the present invention is based on the premise that content providers can effectively eliminate piracy by making it unprofitable. It is thus an objective of the present invention to increase the costs and risks incurred by attackers who steal content. (Col. 6, lines 28-32.) (Emphasis added.)

As indicated by Kocher, the primary objective is to achieve improved security without unduly increasing costs or hassles for content providers or legitimate users as well as minimizing the proliferation of unauthorized decoding devices if an attack does occur (see, Col. 6, lines 47-49 and 53-57.) Hence, Kocher teaches that maximizing the cost of producing unauthorized pirate devices may be prohibited by forcing attackers to repeat complex and expensive, physically-invasive attacks for each pirate device that is produced. (See, Col 6, lines 58-63.)

C. Rejection of Claims 1 and 2 Under 35 U.S.C. § 103

The Examiner rejected pending Claims 1 and 2 under 35 U.S.C. §103(a) as being unpatentable over Ansari in view of Kisliakov.

1. Errors of Law and Fact in the Rejection

For the reasons provided below, the Examiner has failed to establish a *prima facie* case of obviousness in view of the references of record. The Federal Circuit Court of Appeals in In re Rijckaert, 9 F.3d 1531, 28 U.S.P.Q. 2d 1955 (Fed. Cir. 1993) held that:

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. . . . “A *prima facie* case of obviousness is established when the teaching from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.”. . . If the examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned. 9 F.3d at 1532, 28 U.S.P.Q. 2d at 1956. (Emphasis added.)

Applicant respectfully submits that the combined teachings of Ansari in view of Kisliakov would not have suggested the claimed invention to one of ordinary skill in the art, as required to establish a *prima facie* case of obviousness. Id. Hence, a *prima facie* case of obviousness has not been established and the rejection is erroneous and should be overturned. Id.

Ansari discloses a television 10 including a programmable conditional access system (PCAS) 50 that provides a common hardware platform for conditional access of premium television services from direct broadcast satellite and cable service providers without the need of a set-top box. (See page 2, ¶ [0018], lines 4-6.) According to the Examiner:

Ansari et al. does not explicitly teach a core logic. Kisliakov, in an analogous art, however teaches core logic (Figure 10: 1044). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method disclosed by Ansari et al. to include a core logic. (See page 5, ¶ 2 of the Office Action mailed 11/13/06.) (Emphasis added.)

As illustrated in FIGS. 6A and 6B, Kisliakov teaches a card 100 that is used in conjunction with card reader 300, as shown in FIG. 10, to access either global or remote services that are reproduced on output device 616 using a set-top box 601, as shown. (See page 7, ¶ [0134].) As shown in FIG. 10, reader 300 includes a microcontroller for coordinating communication between the reader 300 and a remote module to store mapping information and firmware. The microcontroller 1044 includes random access memory 1047 and flash memory 1046, as well as a central processor unit (CPU) 1045. (See page 6, ¶ [0127].)

We submit that reader 300, as disclosed by Kisliakov, is expressly limited to detecting a service selected by a user according to touched user interface elements for obtaining a selected local service or a selected remote service that is reproduced at output device 616. (See Kisliakov, page 6, ¶ [0133].) We submit that card reader 300, as taught by Kisliakov, enables access to either global or remote services (selected by a user by touching user interface elements) that may be reproduced on an output device 616 using set-top box 601, as shown in FIGS. 6A and 6B. (See page 6, ¶ [0133].)

According to the Examiner, modification of Ansari to include card reader 300, as shown in FIG. 10 and taught by Kisliakov, is obvious because a person having ordinary skill in the art would have been motivated by the desire to allow easy implementation of access control for smart card systems in relation to certain applications executing on a system suggested by Kisliakov (Page 2: 0011). (See page 5, ¶ 2 of the Office Action

mailed 11/13/06.) In contrast to the Examiner's contention, we submit that modification of Ansari in view of Kisliakov as proposed by the Examiner, would render Ansari unsatisfactory for its intended purpose. As indicated by the Federal Court:

If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984.) (Emphasis added.)

Here, PCAS 50, as well as card reader/writer 52, are part of integrated digital television set 10, as shown in FIG. 1 of Ansari. Ansari teaches that television 10 provides a common hardware platform for conditional access of premium television services from direct broadcast satellite and cable service providers without the need for a set-top box. (See page 2, ¶ [0018], lines 4-6.) Furthermore, card reader/writer 52, as taught by Ansari, is required to program conditional access (CA) and digital rights management (DRM) data to removable card 54 to enable each television service provider to program the removable card 54 with its own version of CA and DRM. (See page 2, ¶ [0022], lines 1-6.)

We presume that the Examiner's proposed modification would replace card reader/writer 52 with the reader 300, as shown in FIG. 10 of Kisliakov. Reader 300, as taught by Kisliakov, operates as a user interface to enable service selection by an owner of a card 100 and does not program CA and DRM data to card 100, as required by Ansari. We submit that modification of Ansari to replace card reader/writer 52 of Ansari with the card reader 300, as shown in FIG. 10 of Kisliakov, would render Ansari unsatisfactory for its intended purpose of enabling card reader/writer 52 to program removable card 54 with conditional access (CA) and digital rights management (DRM) as received from a service provider such as a cable television system or digital broadcast satellite. (See Ansari, page 2, ¶ [0022].)

In other words, modification or the replacement of card reader/writer 52 with reader 300, as shown in FIG. 10 of Kisliakov, would prohibit the receipt of conditional access and DRM or digital rights management by PCAS 50, which would then be

provided to card reader/writer 52 to program such data on removable card 54. Conversely, card reader 300, as shown in FIG. 10 of Kisliakov, does not include the capability of programming card 100 with received conditional access or digital rights management, as required by Ansari.

Consequently, the Examiner fails to establish a suggestion or motivation to modify Ansari in view of Kisliakov since such modification would render Ansari unsatisfactory for its intended purpose of enabling or providing a programmable conditional access system that provides a common hardware platform for conditional access of premium television services from direct broadcast satellite and cable service providers without a set-top box. (See Ansari, page 2, ¶ [0018], lines 4-6.)

Accordingly, since the proposed modification by the Examiner would render Ansari unsatisfactory for its intended purpose, there is no suggestion or motivation to make the modification proposed by the Examiner. Id. Consequently, Applicants respectfully submit that the combined teachings of Ansari in view of Kisliakov would not suggest the claimed invention to one of ordinary skill in the art, as required to establish a *prima facie* case of obviousness. In re Rijckaert, supra.

Therefore, a *prima facie* case of obviousness of the claims is not established and the rejection of Claim 1 should be overturned. Id.

2. Specific Limitations Not Described in the Prior Art

Independent Claim 1 recites the following claim features which are neither taught nor suggested by the prior art combination of Ansari in view of Kisliakov:

core logic;

a first conditional access (CA) logic block connected to the core logic, the first CA logic block using a first CA function associated with a first CA provider; and

a second CA logic block connected to the core logic, the second CA logic block using a second CA function associated with a second CA provider,

wherein a connection between the core logic and the first CA logic block is disabled when descrambling of the incoming scrambled content is to be conducted according to the second CA function.

3. Explanation Why Such Limitations Render the Claims Non-Obvious Over the Prior Art

The Examiner fails to illustrate that the combination or modification of Ansari in view of Kisliakov teaches or suggests each of the recited features of the claimed invention. However, the case law is clear in establishing that “to establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art.” In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Here, Claim 1 recites:

wherein a connection between the core logic and the first CA logic block is disabled when descrambling of the incoming scrambled content is to be conducted according to the second CA function.

According to the Examiner, Ansari teaches the above recited feature of Claim 1 at page 2, paragraphs 0018, 0021, 0023 and Figure 1, reference numerals 50, 52, 54 and 62. (See page 5, ¶ 1 of the Office Action mailed 11/13/06.) We respectfully disagree.

Although the Examiner argues that Ansari discloses disabling of the connection between core logic and the first CA block, as in Claim 1, as indicated by the Examiner, Ansari does not explicitly teach a core logic. (See page 5, ¶ 2 of the Office Action mailed 11/13/06.) We submit that the failure of Ansari to teach a core logic prohibits the Examiner from illustrating a disclosure, teaching or suggestion within Ansari that a connection between core logic, which is not taught by Ansari, is disabled when descrambling of incoming scrambled content is to be conducted according to the second CA function, as in Claim 1.

Hence, we submit that the failure of Ansari to teach a core logic prohibits the Examiner from illustrating the disclosure, teaching or suggestion of a disabling of a connection between such core logic, which is not taught by Ansari, and a first CA logic block when descrambling of the incoming scrambled content is to be conducted according to the second CA function, as in Claim 1.

The Examiner cites Kisliakov to teach the core logic of Claim 1. As indicated above, modification of Ansari to include card reader 300, as taught by Kisliakov, results in replacement of card reader/writer 52 taught by Ansari. However, for at least the reasons indicated above, card reader 300 is expressly limited to providing a user interface for card 100 to obtain a selected service based on a one touch operation that permits access to applications and/or data stored on remote server computers with appropriate reproduction by display device 701 by way of user manipulation of the reader 300 and card 100. (See page 6, ¶ [0132].)

Hence, reader 300, as disclosed by Kisliakov, does not impart the capability to program conditional access (CA) and digital rights management (DRM) data to card 100 as required by Ansari (see page 2, ¶ [0018], lines 6-10.) By prohibiting the capability to program a removable card, the Examiner's proposed modification would render Ansari unsatisfactory for its intended purpose and therefore the Examiner fails to provide the suggestion or motivation to make the proposed modification. In re Gordon, *supra*.

Accordingly, since the proposed modification by the Examiner would render Ansari unsatisfactory for its intended purpose, there is no suggestion or motivation to make the modification proposed by the Examiner. *Id.* Furthermore, Ansari discloses that two versions of CA and DRM may simultaneously reside in the PCAS 50 and/or removable card 54 (see page 2, ¶ 21, lines 6-8). However, that is something completely different from disabling of a connection between the core logic and first CA block when descrambling of the incoming scrambled content is to be conducted according to the second CA function, as in Claim 1. Hence, the prior art combination of Ansari in view of Kisliakov fails to teach at least the above recited feature of Claim 1.

Therefore, we respectfully submit that the Examiner fails to establish a *prima facie* case of obviousness of Claim 1 since all claim limitations of Claim 1 are neither taught nor suggested by the prior art combination of Ansari in view of Kisliakov. *Id.* Accordingly, Applicants respectfully submit that the Examiner fails to establish a *prima facie* case of obviousness since the teachings of the prior art references of Ansari in view

of Kisliakov would not have suggested the claimed subject matter to one of ordinary skill in the art. In re Rijckaert, *supra*.

Consequently, Applicant's respectfully submit that the combined teachings of Ansari and Kisliakov would not have suggested the claimed intention to one of ordinary skill in the art as required to establish a *prima facie* case of obviousness. Id. Therefore, a *prima facie* case of obviousness of the claims is not established and the rejection of Claims 1 and 2 is erroneous and should be overturned. Id.

D. Rejection of Claims 11-13 and 19 Under 35 U.S.C. § 103

The Examiner rejected pending Claims 11-13 and 19 under 35 U.S.C. §103(a) as unpatentable over Ansari in view of Kisliakov.

1. Errors of Law and Fact in the Rejection

The Examiner has made the same errors as described previously with respect to rejected Claim 1. In addition, the Examiner has failed to show that the prior art combination of Ansari and Kisliakov teach or suggest all claim features of Claim 11.

As indicated above, the primary goal of Ansari is to teach a single digital television 10 that provides a common hardware platform for conditional access to premium television services from direct broadcast satellite and cable service providers, without the need for a set-top box. (See Ansari, page 2, ¶ [0018], lines 4-6.) To enable the integrated digital television set 10, as taught by Ansari, Ansari requires that card writer 52 include the capability of programming removable card 54 with conditional access (CA) and digital rights management (DRM) that are received by television 10 from a service provider such as a cable television system or digital broadcast satellite. (See Ansari, page 2, ¶ [0022].)

Conversely, reader 300, as taught by Kisliakov, is expressly limited to providing a user interface that allows the user to select a desired service according to touched interface elements of reader 300, as shown in FIG. 10, such that a local or remote selected service is provided and reproduced at output device 616. (See Kisliakov, page 6, ¶

[0133].) Hence, reader 300, as taught by Kisliakov, does not require nor include the capability to program CA and DRM data to card 100, as required by Ansari. (See, Supra.) Hence, modification or replacement of card reader/writer 52, as taught by Ansari, with reader 300, as taught by Kisliakov, would prohibit the receipt of conditional access and DRM or digital rights management by television 10, which must be used to program removable card 54 using card reader/writer 52 of Ansari to enable the capability of programming removable card 54 with received conditional access or digital rights management, which Ansari requires to enable an integrated digital television that provides premium services from cable operators or digital broadcast satellite without the need of a set-top box. (See Ansari, page 2, ¶ [0026], lines 1-6.)

Accordingly, since the proposed modification by the Examiner would render Ansari unsatisfactory for its intended purpose, there is no suggestion or motivation to make the modification proposed by the Examiner. Id. Consequently, Applicants respectfully submit that the combined teachings of Ansari in view of Kisliakov would not have suggested the claimed invention to one of ordinary skill in the art, as required to establish a *prima facie* case of obviousness. In re Rijckaert, supra.

Therefore, a *prima facie* case of obviousness is not established and rejection of Claim 11 should be overturned. Id.

2. Specific Limitations Not Described in the Prior Art

Independent Claim 11 recites the following claim features which are neither taught nor suggested by the prior art combination of Ansari in view of Kisliakov:

core logic;

a plurality of conditional access logic blocks coupled to the core logic and including a first conditional access logic block and a second conditional access logic block, the first conditional access logic block using a first conditional access (CA) function associated with a first CA provider and the second conditional access logic block using a second CA function associated with a second CA provider,

wherein enabling only the first conditional access logic block of the plurality of conditional access logic blocks when the incoming scrambled content is scrambled according to the first CA function. (Emphasis added.)

3. Explanation Why Such Limitations Render the Claims Non-Obvious Over the Prior Art

The Examiner fails to illustrate that the combination or modification of Ansari in view of Kisliakov teaches or suggest each of the recited features of the claimed invention. Here, the claimed invention recites:

wherein enabling only the first conditional access logic block of the plurality of conditional access logic blocks when the incoming scrambled content is scrambled according to the first CA function. (Emphasis added.)

According to the Examiner, the above recited feature of Claim 11 is taught by Ansari at page 2, paragraphs 18, 21, 23 and Figure 1, reference numerals 50, 52, 54 and 62. (See page 6, ¶ 2 of the Office Action mailed 11/13/06.) Ansari discloses that two versions of CA and DRM may simultaneously reside in the PCAS 50 and/or removable card 54 (see Ansari, page 2, ¶ [0021], lines 6-8), however, that is something completely different from enabling only the first conditional access logic block of the plurality of conditional access logic blocks when the incoming scrambled content is scrambled according to the first CA function, as in Claim 11.

We submit that the prior art combination of Ansari in view of Kisliakov fails to teach or suggest enabling or disabling first and second versions of CA and DRM that simultaneously reside in the PCAS 50 and/or the removable card 54, as in Claim 11. According to the Examiner:

Kisliakov teaches a card configuration features and options that by default renders the card to a disabled configuration state unless the required commands of the card are configured and executed to enable and function the card as desired (0321; 0357). (See page 3, ¶ 2 of the Office Action mailed 11/13/06.)

Kisliakov teaches that all features of CPU card 100B are disabled until a pass code is entered (see page 26, ¶ [0357], lines 7-12), however, that is something completely

different from enabling only the first conditional access logic block of the plurality of conditional access logic blocks when the incoming scrambled content is scrambled according to the first CA function, as in Claim 11. Hence, the prior art combination of Ansari in view of Kisliakov fails to teach or suggest at least the above recited feature of Claim 11.

Therefore, we respectfully submit that the Examiner fails to establish a *prima facie* of obviousness of Claim 11, since all claims limitations of Claim 11 are neither taught nor suggested by the prior art combination of Ansari in view of Kisliakov. In re Rijckaert, supra. Furthermore, the Examiner fails to establish a suggestion or motivation for modifying Ansari in view of Kisliakov. In re Gordon, supra.

Consequently, we respectfully submit that the combined teachings of Ansari in view of Kisliakov would not have suggested the claimed invention to one of ordinary skill in the art, as required to establish a *prima facie* of obviousness. In re Rijckaert, supra. Therefore, a *prima facie* of obviousness is not established and rejection of Claim 11 as well as dependent Claims 12-13 and 19 is erroneous and should be overturned. Id.

E. Rejection of Claims 3-10, 14-18, 20 and 22-23 Under 35 U.S.C. § 103

The Examiner rejected pending Claims 3-10, 14-18, 20 and 22-23 under 35 U.S.C. §103(a) as unpatentable over Ansari in view of Kisliakov and further in view of Kocher.

1. Errors of Law and Fact in the Rejection

The Examiner has made the same errors as described previously with respect to rejected independent Claims 1 and 11. For the reasons provided below, the Examiner has failed to establish a *prima facie* case of obviousness in view of the references of record.

For at least the reasons indicated above, modification of Ansari in view of Kisliakov to replace card reader/writer 52 with card reader 300, as shown in FIG. 10 of Kisliakov fails to provide the capability of programming received conditional access or digital rights management data on removable card 54 to enable an integrate television set that handles multiple premium television services offered by cable and DBS television

service providers in a seamless manner and without an additional set-top box. (See page 1, ¶ [0007].)

Moreover, according to the Examiner, Kocher teaches a battery-backed RAM non-volatile memory at column 25, lines 60-67 and column 27, lines 1-10. (See page 3, ¶ 2 of the Office Action mailed 11/13/06.) We respectfully disagree with the Examiner's characterization of Kocher.

We respectfully submit that Ansari explicitly requires the capability to reprogram removable card 54 with its own version of conditional access (CA) and digital rights management (DRM). Providing this freedom allows consumers the freedom of changing service providers without having to change their television set or acquire a new set-top box by enabling the reprogramming of PCAS 50 as well as removable card 54. (See Ansari, page 2, ¶¶ [0019], [0022] and [0023].)

We submit that limiting PCAS 50 as well as removable card 54 to one time programmability, as proposed by the Examiner, would render Ansari unsatisfactory for its intended purpose as prohibited by case law. In re Gordon, *supra*. In other words, limiting PCAS 50 and removable card 54 to one time programmability would prohibit the integrated digital television set taught by Ansari, which is required to handle multiple premium television services provided by cable and DBS television service providers in a seamless manner without an additional set-top box by allowing each television service provider the capability of imparting its own version of CA and DRM to consumers, which allows consumers to change their service providers without having to change their television set or acquire a new set-top box. (See Ansari, page 1, ¶ [0007] and page 2, ¶ [0023].)

Accordingly, since the proposed modification by the Examiner would render Ansari unsatisfactory for its intended purpose, there is no suggestion or motivation to make the modification proposed by the Examiner. In re Gordon, *supra*.

Consequently, Applicant's respectfully submit that a *prima facie* case of obviousness has not been established since the combined teachings of Ansari in view of

Kisliakov and further in view of Kocher would not have suggested the claimed invention to one of ordinary skill in the art as required to establish *prima facie* obviousness. In re Rijckaert, supra. Hence a *prima facie* case of obviousness is not established and the rejection is erroneous and should be overturned. Id.

2. Specific Limitations Not Described in the Prior Art

Claims 3-10, 14-18 and 20 recite analogous claim features. Claim 20 is representative. Independent Claim 20 recites the following claim features which are neither taught nor suggested by the prior art combination of Ansari in view of Kisliakov and further in view of Kocher:

core logic; and
a programmable logic device including a plurality of programmable gates programmed to operate in accordance with a conditional access (CA) function associated with a first CA provider to descramble the incoming scrambled content, the programmable gates of the programmable logic device are one-time programmable and battery-backed so that disruption of power will cause the programmable logic device to become inoperative. (Emphasis added.)

3. Explanation Why Such Limitations Render the Claims Anticipated by the Prior Art

The Examiner fails to illustrate that the combination or modification of Ansari in view of Kisliakov further in view of Kocher teaches or suggests each of the recited features of the claimed invention, as required to establish *prima facie* obviousness of a claimed invention. In re Royka, supra.

Claim 20 recites:

a programmable logic device including a plurality of programmable gates programmed to operate in accordance with a conditional access (CA) function associated with a first CA provider to descramble the incoming scrambled content, the programmable gates of the programmable logic device are one-time programmable and battery-backed so that disruption of power will cause the programmable logic device to become inoperative. (Emphasis added.)

For at least the reasons indicated above, modification of Ansari in view of either Kisliakov, to teach a core logic, or Kocher, to teach one time programmable gates to operate in accordance with a conditional access function associated with a first CA provider, as in Claim 20, would render Ansari unsatisfactory for its intended purpose of providing programmable conditional access and digital rights management in an integrated digital television which does not require a set-top box, which allows consumers to change their service providers without having to change their television set or acquire a new set-top box. (See Ansari, page 1, ¶ [0007] and page 2, ¶ [0023].) Consequently, the prior art combination of Ansari in view of Kisliakov and further in view of Kocher fails to teach or suggest at least a core logic as well as the one time programmable gates, as in Claim 20. Therefore, the Examiner fails to establish a *prima facie* case of obviousness of Claim 20 since the prior art combination of Ansari in view of Kisliakov and further in view of Kocher fails to teach or suggest all claims limitations recited by the claimed invention. In re Royka, *supra*.

Consequently, Applicant's respectfully submit that the combined teachings of Ansari in view of Kisliakov and Kocher would not have suggested the claimed intention to one of ordinary skill in the art as required to establish a *prima facie* case of obviousness. In re Rijckaert, *supra*. Therefore, a *prima facie* case of obviousness of the claims is not established and the rejection of Claim 20, as well as dependent Claims 3-10, 14-18 and 22-23 is erroneous and should be overturned. Id.

Based on the foregoing, Applicants request that the Board overturn the rejection of all pending claims and hold that all of the claims currently under review are allowable.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, LLP

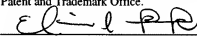
Dated: 6/13/07


Joseph Lutz, Reg. No. 43,765

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025
Telephone (310) 207-3800
Facsimile (310) 820-5988

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I hereby certify that this correspondence is being submitted electronically via EFS Web on the date shown below to the United States Patent and Trademark Office.


Elaine Kwak

6/13/07
Date

VIII. CLAIMS APPENDIX

The claims involved in this appeal are presented below.

1. (Previously Presented) An apparatus adapted to a digital device, comprising:
core logic;
a first conditional access (CA) logic block connected to the core logic, the first CA logic block using a first CA function associated with a first CA provider; and
a second CA logic block connected to the core logic, the second CA logic block using a second CA function associated with a second CA provider,
wherein a connection between the core logic and the first CA logic block is disabled when descrambling of the incoming scrambled content is to be conducted according to the second CA function.
2. (Original) The apparatus of claim 1 is a CableCARD coupled to a set-top box.
3. (Original) The apparatus of claim 1, wherein the core logic comprising:
a processor core;
a secure non-volatile memory accessible by the processor core, the secure non-volatile memory to contain a key; and
a non-volatile memory accessible by the processor core, the non-volatile memory to contain information in a scrambled format, the information being recovered using the key contained in the secure non-volatile memory.
4. (Original) The apparatus of claim 3, wherein the core logic further comprises a descrambler shared by the first CA logic block and the second CA logic block to descramble the incoming data.
5. (Original) The apparatus of claim 3, wherein each of the first CA logic block and the second CA logic block further comprises a descrambler to descramble the incoming data.

6. (Original) The apparatus of claim 3, wherein the core logic further comprises a metal shield surrounding the processor core, the secure non-volatile memory and the non-volatile memory, the shield being made of a conductive material over which power is supplied to the secure non-volatile memory.

7. (Original) The apparatus of claim 6, wherein the key is erased from the secure non-volatile memory if a supply of power is disrupted to the secure non-volatile memory due to tampering of the shield.

8. (Original) The apparatus of claim 1, wherein the first and second CA logic blocks are one-time programmable logic devices.

9. (Original) The apparatus of claim 1, wherein the first and second CA logic blocks are field programmable gate arrays.

10. (Original) The apparatus of claim 1, wherein the first CA function differs from the second CA function.

11. (Original) An apparatus adapted to a digital device, comprising:
core logic;
a plurality of conditional access logic blocks coupled to the core logic and including a first conditional access logic block and a second conditional access logic block, the first conditional access logic block using a first conditional access (CA) function associated with a first CA provider and the second conditional access logic block using a second CA function associated with a second CA provider,
wherein enabling only the first conditional access logic block of the plurality of conditional access logic blocks when the incoming scrambled content is scrambled according to the first CA function.

12. (Original) The apparatus of claim 11, wherein the core logic further comprises a descrambler shared by the plurality of conditional access logic blocks to descramble the incoming data.

13. (Original) The apparatus of claim 11, wherein each of the plurality of conditional access logic blocks further comprises a descrambler to descramble the incoming data.

14. (Original) The apparatus of claim 11, wherein each of the plurality of conditional access logic blocks is a field programmable gate array.

15. (Original) The apparatus of claim 11, wherein each of the plurality of conditional access logic blocks is a one-time programmable logic device.

16. (Original) The apparatus of claim 15, wherein each of the plurality of conditional access logic blocks is battery-backed so that disruption of power will cause all of the plurality of conditional access logic blocks to become inoperative.

17. (Original) The apparatus of claim 11, wherein each of the plurality of conditional access logic blocks is a programmable logic device including programmable gates that are programmed at every power-up.

18. (Original) The apparatus of claim 17, wherein the core logic comprises:
a battery-backed, non-volatile memory to contain a descrambling key; and
a descrambler coupled to the battery-backed non-volatile memory, the descrambler using the descrambling key to program the programmable gates of each of the plurality of conditional access logic blocks.

19. (Original) The apparatus of claim 11 being a network card connected to a set-top box.

20. (Previously Presented) An apparatus adapted for coupling to internal circuitry of a digital device and for descrambling incoming scrambled content, comprising:

core logic; and

a programmable logic device including a plurality of programmable gates programmed to operate in accordance with a conditional access (CA) function associated with a first CA provider to descramble the incoming scrambled content, the programmable gates of the programmable logic device are one-time programmable and battery-backed so that disruption of power will cause the programmable logic device to become inoperative.

21. (Cancelled)

22. (Original) The apparatus of claim 20, wherein the core logic comprising:

a processor core;

a secure non-volatile memory accessible by the processor core, the secure non-volatile memory to contain a key;

a non-volatile memory accessible by the processor core, the non-volatile memory to contain information in a scrambled format, the information being recovered using the key contained in the secure non-volatile memory; and

a shield adapted to cover the processor core the secure non-volatile memory and the non-volatile memory, the shield being made of a conductive material over which power is supplied to the secure non-volatile memory.

23. (Original) The apparatus of claim 20, wherein the programmable gates of the programmable logic device are programmed at every power-up.

IX. EVIDENCE APPENDIX

No other evidence is submitted in connection with this appeal.

X. RELATED PROCEEDINGS APPENDIX

No related proceedings exist.